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PART 2

Your attention is invited

**NEWS
OF THE
HYDRAULICS
DIVISION
OF
ASCE**



**JOURNAL OF THE HYDRAULICS DIVISION
PROCEEDINGS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS**

DIVISION ACTIVITIES HYDRAULICS DIVISION

Proceedings of the American Society of Civil Engineers

NEWS

March, 1961

THE PURPOSE OF THE HYDRAULICS DIVISION

"The advancement and dissemination of scientific and engineering knowledge in all branches of hydraulics, hydrology, hydraulic engineering and water resources. In particular this shall embrace meteorology and hydrology as the sciences dealing with the occurrence of water in the atmosphere, on the earth surface and in the ground, fluid mechanics for the understanding of all flow phenomena, applied hydraulics for the design and planning of hydraulic structures and of comprehensive systems, and those social, economic and administrative aspects basic to the conservation and utilization of water as an essential natural resource."

EXTRACTS FROM MINUTES OF MEETING OF THE EXECUTIVE COMMITTEE, HYDRAULICS DIVISION ASCE CHICAGO, ILLINOIS, NOVEMBER 18 AND 19, 1960

"Committee Chairman, Maurice L. Dickinson, presided. Those in attendance were:

Mr. Maurice L. Dickinson, Chairman
Mr. Eugene P. Fortson, Jr., Vice Chairman
Dr. Arthur T. Ippen
Mr. Herbert S. Riesbol
Mr. Samuel S. Baxter*
Dr. Arno T. Lenz, Secretary

I. MEETING WITH CHARMEN OF WATER RESOURCES COMMITTEES

The following chairmen of the five Water Resources committees met with the executive committee in the Friday morning session.

Note.—No. 1961-8 is Part 2 of the copyrighted Journal of the Hydraulics Division, Proceedings of the American Society of Civil Engineers, Vol. 87, No. HY 2, March, 1961.

*Member from the Board of Direction; attended on November 19 only.
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1961-8-2

HY 2

March, 1961

Mr. Robert L. Smith, Water Resources Planning
Professor Ray K. Linsley, Hydrometeorology
Professor David K. Todd, Ground Water Hydrology
Mr. H. Alden Foster, Surface Water Hydrology
Mr. Francis G. Christian, Flood Control

A. Review of Water Resources Activities. Mr. Riesbol led a general review of activities, status and plans of the Water Resources committees, followed by discussion of details.

B. Committee on Session Programs. Mr. Fortson, Member Executive Committee, in charge of 1961 Sessions Programs, requested that all correspondence with society headquarters and local committees regarding these programs be routed through his office to insure complete coordination of this activity within the division. The technical committee member who is coordinating his committee's part of any program should properly be named as co-chairman of the session when the papers are presented along with a member of the executive committee as the other co-chairman. If this coordinator cannot be present, however, it is desired that a committee member who will be present be named as co-chairman by the technical committee. In the event any co-chairman cannot be present after being listed it is important the executive committee member in charge be notified of a substitution or possible failure to have a co-chairman present.

C. Convention and Conference Programs 1961

(Eugene P. Fortson Jr. Executive Committee Member in charge)

Urbana Conference

August 16 - 18

<u>Committee</u>	<u>Sponsor</u>
Hydrometeorology	Hiatt
Surface Water Hydrology	Koelzer
Ground Water Hydrology	Guyton
Hydraulic Structures	Webster
Sedimentation	Eagleson

An outline diagram of conference dates and activities prepared by the local committee was distributed and discussed.

New York (Ippen to preside) October 16 - 20

<u>Committee</u>	<u>Sponsor</u>
Tidal Hydraulics	Bretschneider
Hydromechanics 2 sessions	Laursen
Hydraulic Structures	Peterka
Sedimentation	

D. Convention and Conference Programs 1962

(Herbert S. Riesbol, Executive Committee Member in charge)

Houston (Fortson to preside) February 19 - 23

Omaha (Riesbol to preside) May 14 - 18

Hydraulics Conference August

The invitation of the Sacramento Section to entertain the Division at the annual conference was accepted with pleasure. Mr. Riesbol will be program director for this conference.

Detroit (Lenz to preside) October 8 - 12

E. Task Force Activities (Water Resource Committees) It was reported that money has been budgeted for each of the three task forces in this group so that meetings can be held this year.

1. Spillway Design Floods (Committee on Surface Water Hydrology)
There are 14 members on this committee which makes it very difficult to operate. It was decided to consider the establishment of a 5-man control group and suggest it would be highly desirable for this task force to complete its report in 1961.

2. Flood Plain Regulations (Committee on Flood Control)
A second meeting of this task force is planned for 1961 when it is hoped that the final report can be completed.

3. Salt Water Intrusion (Committee on Ground Water Hydrology)
Names have been submitted for committee consideration and the final selection will be reported by the Committee Chairman, David Todd. It is anticipated an organizational meeting will be held next summer.

4. Educational Facilities for Hydrology

This project is not a Task Force in the usual sense because Professor Lenz has been working on this study alone. It is anticipated that a report will be forthcoming shortly because Professor Lenz is to work with Professor M. G. Wolman, head of the Department of Geography of Johns Hopkins University, in the preparation of a report to be presented to the Federal Council on Science and Technology, and by that body, to the President.

F. Committee on Water Resources Planning. A suggestion that this committee work with a similar committee in the Sanitary Division was approved. Chairman Robert L. Smith reported consideration of the role of ASCE in Water Resources planning and suggested a half day program to discuss this subject at the: (1) state level, as in California, (2) national level and (3) world level, as in under-developed nations. While there would be advantages to presenting this at a division conference a suggestion was made to consider this for the Houston Convention.

G. Newsletter.--There was discussion that a list of new publications of interest to Division be reported in the Newsletter. This should be limited to title, author, and publication. This should probably be limited to books and reports.

II. EXECUTIVE COMMITTEE SESSION

A. Budget Summary. The Secretary will advise committee chairmen of funds available for meetings. It will be advisable to hold these meetings early in the year. The 1961-62 budget is due on June 1 and Committee Chairmen must request committee and Task Force meetings before that date.

1961-8--4

HY 2

March, 1961

B. Annual Report. The Secretary was instructed to express the appreciation of the committee to Past Secretary Harold Martin for the fine job he did on the Annual Report as well as for his great help while secretary and on the Executive Committee.

C. Report on Seattle Conference. Mr. Dickinson reported on the Seattle Conference very briefly because all committee members were in attendance at that most enjoyable meeting.

D. Report on Boston Convention. Dr. Ippen reported on activities and problems connected with the meeting in Boston. All names of co-chairmen were not listed on the printed program with some confusion resulting. It was noted that large numbers of students attended particularly from Washington, D. C., and Illinois. This is to be encouraged. Discussion was held on the number of Division session per convention (4 to 6), their sequence in the week, and the daily Professional Practice Session from 11 to 12.

E. Administrative and Technical Committee Activities. Mr. Baxter reported the Division Activities Committee allocates budgeted funds. Requests for support should be well conceived and fully documented. As a matter of policy it is suggested that all technical committees meet early each year as soon as possible after the annual convention in October.

1. Publications Committee. Professor Lansford, Chairman, has agreed to serve another year. His fine work in this important task is much appreciated.
2. Research Committee. Funds have been budgeted for a meeting of this committee.
3. Committee on Sedimentation. It was reported the committee desires to meet in Phoenix in April at the time of the Convention.
4. Committee on Hydraulic Structures. There was consideration of a proposed Task Force on the "Hydraulics of Navigation Locks" and the possible duplication with what is believed to be an existing task force of the Waterways and Harbors Division of "Filling and Emptying Systems for Locks." The Secretary is to request that action on this new task force be deferred pending confirmation of the existence of the other Task Force.
5. Committee on Hydromechanics. Mr. Julian Hinds has requested to be relieved of the chairmanship of the Task Force on Friction Factors in Open Channels. Dr. Edward Silberman was named the new chairman. Mr. Hinds will continue on the Task Force. Committee Chairman Norman Brooks has approved this change.

F. Lecture Tour Sponsored by N. S. F. The National Science Foundation has provided funds for lecture tours by outstanding engineers from foreign countries. Dr. Ippen has been in correspondence with several and has recently contacted Mr. J. B. Schijf, director of the Rykwaterstaat in the Hague, Netherlands. It was approved that Mr. Schijf be extended an invitation. It is anticipated he may come in March or April."

GENERAL NEWS**Urbana Conference**

The tenth annual Hydraulics Division Conference will be held in Urbana, Illinois, August 16-18, 1961. The co-hosts are the Central Illinois Section and the University of Illinois. The six half-day technical sessions will be held in an air-conditioned campus auditorium.

The conference social activities being planned include a banquet for the men and ladies, and a luncheon for the men as well as an informal picnic for everyone. The ladies and children will be interested in the all day Lincoln Tour to Springfield, Illinois and New Salem State Park, Illinois. This tour, which will be in an air-conditioned bus, includes a visit to Lincoln's Home and tomb in Springfield and to New Salem State Park where he lived and worked as a young man. Swim parties and picnics are being planned for the children.

Now is the time to plan to attend the hydraulics conference with your family while on vacation in Central Illinois.

More detailed information is planned for the May issue of the Newsletter.

Senate Select Committee on National Water Resources

The list of 31 Committee Prints given in the January Newsletter should be supplemented by adding the following:

Committee Print No. 32

The Supply of and Demand for
Water in the United States.

NEW PUBLICATIONS

The following list inaugurates a new feature for the Newsletter which has been requested by some members of the Division. This feature will include bibliographical listing of separate publications (as opposed to papers in technical journals) which are recommended by some members of the Division as being of value to the interests of the Hydraulics Division and which do not appear in other lists which are widely distributed among hydraulics men (for example citation will not be made to articles or books announced in "Civil Engineering," in the indexes published by the U. S. Government Printing Office, or in other similar lists). It is hoped that the Hydraulics Division members will be appreciative of the opportunity to receive early announcement of the availability of valuable new publications which otherwise may have only limited publicity. Inclusion or noninclusion of a citation in the list does not imply any degree of endorsement by the Hydraulics Division or your editor. Thanks go to Dr. D. K. Todd, Chairman of the Committee on Ground Water Hydrology who compiled this initial list to get this project started. All members are encouraged to submit appropriate and complete recommendations for the list. Your comments regarding this new listing will be appreciated.

1. Anon., First quarterly report--The study of the potential applications of radioisotope technology to water resource investigations and utilization, Isotopes, Inc., Westwood, N. J., 60 pp., 1960.

2. Anon., Santa Barbara weather modification project--interim report of the Board of Directors, California Department of Water Resources, Sacramento, 128 pp., 1960.
3. Anon., Second quarterly report--The study of the potential applications of radioisotope technology to water resource investigations and utilization, Isotopes, Inc., Westwood, N. J., 56 pp., 1960.
4. Anon., Some potential uses of nuclear explosives in the conservation and development of water resources, Lawrence Radiation Laboratory, Livermore, California, 24 pp., 1960.
5. Archer, R. J., Sediment discharges of Ohio streams during floods of January-February 1959, Ohio Division of Water, Columbus, 16 pp., 1960.
6. Assembly Interim Comm., Economic and financial policies for state water projects, California Legislature, Sacramento, 315 pp., 1960.
7. Bader, J. S., and W. R. Moyle, Jr., Data on water wells and springs in the Yucca Valley--Twentynine Palms area, San Bernardino and Riverside Counties, California, Bulletin No. 91-2, California Department of Water Resources, Sacramento, 163 pp., 1960.
8. Barnes, C., Water resources reports and data, Los Angeles County Flood Control District, Water Resources Center Archives Rep. No. 9, University of California, Berkeley, 77 pp., 1960.
9. Bear, J., and D. K. Todd, The transition zone between fresh and salt waters in coastal aquifers, Water Resources Center Cont. No. 29, University of California, Berkeley, 156 pp., 1960.
10. Bond, R. B., and S. T. Pyle, Klamath River Basin Investigation, Bulletin No. 83, California Department of Water Resources, Sacramento, 198 pp., 1960.
11. Brewer, M. F., Water pricing and allocation with particular reference to California Irrigation Districts, California Agric. Experiment Station Mimeo. Rep. No. 235, University of California, Berkeley, 149 pp., 1960.
12. Buckel, W. L., and others, A study and development of the Hickman sea-water still, Research and Dev. Prog. Rep. No. 43, U. S. Office of Saline Water, Washington, D. C., 148 pp., 1960.
13. Caldwell, J. M., Development and tests of a radioactive sediment density probe, Tech. Memo No. 121, Beach Erosion Broad, Corps of Engineers, Washington, D. C., 29 pp., 1960.
14. Carbaugh, H. C., and others, A method of evaluating water supply and demand in a region, Dept. of San. Engr. and Water Resources, The John Hopkins Univ., Baltimore, Maryland, 166 pp., 1960.
15. Chambers, J. T., and P. S. Larsen, Series staging of vapor compression distillation, Water Resources Center Cont. No. 25, University of California, Berkeley, 39 pp., 1960.
16. Ciriacy-Wanrup, S. V., Projections of water requirements in the economics of water policy, Giannini Fdn. Paper No. 193, University of California, Berkeley, 25 pp., 1960.

17. Furness, W. L., Kansas streamflow characteristics, Pt. 2--Low-flow frequency, Technical Rep. No. 2, Kansas Water Resources Board, Topeka, 179 pp., 1960.
18. Giefer, G. J., and C. Barnes, Reports and data in the water resources collection, Honnold Library, Claremont Colleges, Claremont, California, Water Resources Center Archives Rep. No. 10, University of California, Berkeley, 66 pp., 1960.
19. Hall, F. R., J. L. Hatchett, N. T. Houston, and R. G. Spiegelman, Availability and use of water in the San Bernardino Valley Municipal Water District, Stanford Research Inst., Menlo Park, Calif., 194 pp., 1960.
20. Hammond, R. J., Benefit-cost analysis and water-pollution control, Food Research Inst. Misc. Publ. 13, Stanford University, Stanford, California, 95 pp., 1960.
21. Harder, J. A., L. Mockros, and R. Nishizaki, Flood Control analogs, Water Resources Center Cont. No. 24, University of California, Berkeley, 54 pp., 1960.
22. Harding, S. T., Water in California, N-P Publications, Palo Alto, California, 231 pp., 1960.
23. Horikawa, K., and H. W. Shen, Sand movement by wind action, Technical Memo. No. 119, Beach Erosion Board, Corps of Engineers, Washington, D. C., 51 pp., 1960.
24. Howe, E. D., Current and potential methods for demineralizing water, Water Resources Center Cont. No. 26, University of California, Berkeley, 13 pp., 1960.
25. Hydrology Subcommittee, Bibliography of unpublished hydrologic data--Pacific Southwest region, Pacific Southwest Inter-Agency Committee, 26 pp., 1960.
26. Johnson, J. W., Laboratory facilities in the United States for research on water gravity waves, Council on Wave Research, Berkeley, California, 35 pp., 1960.
27. Kalkanis, G., Model study of Santa Rosa Creek hydraulic structures, Institute of Engr. Research Rept. 148-1, University of California, Berkeley, 58 pp., 1960.
28. Klyachko, V. A., Ionite membranes and their characteristics, Water Resources Center Cont. No. 27, University of California, Berkeley, 34 pp., 1960.
29. Knox, J. B., Procedures for estimating maximum possible precipitation, Bulletin No. 88, California Department of Water Resources, Sacramento, 29 pp., 1960.
30. Krone, R. B., An underwater scintillation detector for gamma emitters, Hydraulics Lab., University of California, Berkeley, 18 pp., 1960.
31. Kruse, G., Selection of gravel packs for wells in unconsolidated aquifers, Technical Bulletin 66, Colorado State University Experiment Station, Fort Collins, 22 pp., 1960.

32. McElyea, J. R., and J. W. Cone, Potential uses of watershed lands of the East Bay Municipal Utility District, Stanford Research Inst., Menlo Park, Calif., 52 pp., 1960.
33. Mink, W. H., G. F. Sachsel, and R. B. Filbert, Jr., Development of the zone-purification process for preparing potable water from sea water, Research and Dev. Prog. Rep. No. 39, U. S. Office of Saline Water, Washington, D. C., 31 pp., 1960.
34. Nakayama, F. S., Application of tritium tracer in soil and plant water investigations, Agric. Research Service, U. S. Department of Agriculture, Washington, D. C., 12 pp., 1960.
35. Ogilvie, T. F., Propagation of waves over an obstacle in water of finite depth, Inst. of Engr. Research Rep. 82-14, University of California, Berkeley, 88 pp., 1960.
36. Oswald, W. J., A. G. Beattie, and C. G. Golueke, An engineering evaluation of some currently proposed methods for biological conversion of saline waters, San. Engr. Research Lab., University of California, Berkeley, 42 pp., 1960.
37. Page, R. W., W. R. Moyle, Jr., and L. C. Dutcher, Data on wells in the West part of the middle Mojave Valley area, San Bernardino County, California, Bulletin 91-1, California Department of Water Resources, Sacramento, 126 pp., 1960.
38. Picton, W. L., Water in the United States, 1900-1980, Water and Sewerage Industry and Utilities Div., U. S. Business and Defense Services Admin., Washington, D. C., 6 pp., 1960.
39. Polytechnic Inst. of Brooklyn, Research on and development of ionselective and ion-specific membranes for use in the large-scale, low-cost demineralization of saline waters by selective electrodialysis, Research and Dev. Prog. Rep. No. 37, U. S. Office of Saline Water, Washington, D. C., 69 pp., 1960.
40. Porter, W. R., Pressure distributions, added-mass, and damping coefficients for cylinders oscillating in a free surface, Institute of Engr. Research Rep. 82-16, University of California, Berkeley, 181 pp., 1960.
41. Raphael, J. M., Structural model investigations for Oroville Dam, Inst. of Engr. Research Rep. 100-6, University of California, Berkeley, 164 pp., 1960.
42. Robinson, A. R., Model study of a trapezoidal flume for measurement of stream discharge, Colorado State Univ. Research Fdn., Fort Collins, 14 pp., 1960.
43. Robinson, D. O., and C. Parkow, A study of SS-13 in relation to infiltration rate, water holding capacity, and influence on crop growth in a sandy soil, Div. of Agric., Arizona State Univ., Tempe, 25 pp., 1960.
44. Ruff, P. F., and J. W. Klock, An investigation to determine the effectiveness of a chemical additive for reducing seepage in irrigation canals, School of Engineering, Arizona State University, Tempe, 38 pp., 1960.

45. Senate Fact Finding Comm. on Water Resources, Contracts, financing, cost allocations for State water development--A partial report, California Legislature, Sacramento, 122 pp., 1960.
46. Suter, M., and R. H. Harmeson, Artificial ground-water recharge at Peoria, Illinois, Illinois State Water Survey Bulletin 48, Urbana, 48 pp., 1960.
47. Teerink, Jr. R., and others, Northeastern Counties investigation, Bulletin No. 58, California Department of Water Resources, Sacramento, 312 pp., 1960.
48. Texas Research Fdn., Development of the solvent demineralization of saline water, Research and Dev. Prog. Rep. No. 35, U. S. Office of Saline Water, Washington, D. C., 89 pp., 1960.
49. Walton, W. C., Leaky artesian aquifer conditions in Illinois, Rep. of Invest. 39, Illinois State Water Survey, Urbana, 27 pp., 1960.
50. Walton, W. C., and G. D. Scudder, Ground-water resources of the Valley-Train deposits in the Fairborn area, Ohio, Tech. Rep. No. 3, Ohio Div. of Water, Columbus, 57 pp., 1960.
51. Weber, C. M., An approach to a California public works plan--Comprehensive co-ordinated public works planning and a step-by-step water plan for California, Weber Fdn. Studies, Calif. State Printing Office, Sacramento, 374 pp., 1960.
52. Wiegant, W. F., Saline water conversion by freezing--An integral unit using a secondary refrigerant, Research and Dev. Prog. Rep. No. 41, U. S. Office of Saline Water, Washington, D. C., 44 pp., 1960.
53. Wilson, B. W., The prediction of hurricane storm-tides in New York Bay, Tech. Memo. No. 120, Beach Erosion Board, Corps of Engineers, Washington, D. C., 107 pp., 1960.

FOR YOUR CALENDAR

ASCE Meetings

April 10-14, 1961	ASCE, Phoenix Convention
August 16-18, 1961	Hydraulics Division Conference, Urbana, Illinois
October 16-20, 1961	ASCE, New York Convention
February 19-23, 1962	ASCE, Houston Convention
May 14-18, 1962	ASCE, Omaha Convention
August, 1962	Hydraulics Division Conference, Sacramento, California
October 8-12, 1962	ASCE, Detroit Convention
February 25-March 1, 1963	ASCE, Atlanta Convention

1961-8--10

HY 2

March, 1961

Non-ASCE Meetings

March 28-30, 1961

National Water Research Symposium,
sponsored by National Reclamation
Association and National Associa-
tion of Soil Conservation Districts,
Washington, D. C.

April 18-21, 1961

Annual Meeting, American Geophysical
Union, Washington, D. C.

June 26-July 2, 1961

Seventh Congress International Com-
mittee on Large Dams, Rome, Italy

September 3-7, 1961

Ninth IAHR Convention, Belgrade,
Yugoslavia

September 6-8, 1961

Seventh Midwestern Conference on
Fluid Mechanics and Soil
Mechanics, Michigan State Univer-
sity, East Lansing, Michigan

June 18-21, 1962

Fourth National Congress of Applied
Mechanics, University of California,
Berkeley, California

USE OF THE HYDRAULICS DIVISION NEWSLETTER

You are urged to use the Division Newsletter for announcements, in-
quiries, personnel news, committee reports, surveys and other items of in-
terest to Division members. A short note summarizing the highlights of
committee meetings is particularly requested. Suggestions for improvement
of the Newsletter will be appreciated. All contributions are appreciated.

Deadline dates for Newsletter contributions:

May 1961 issue--March 20; July 1961 issue--May 20.

Fred A. Bertle
4475 Carr Street
Wheat Ridge, Colorado

SEWER DESIGN AND CONSTRUCTION MANUAL REPRINTED

ASCE Manual 37 "Design and Construction of Sanitary and Storm Sewers,"
issued in early 1960 as a joint effort with the Water Pollution Control Feder-
ation, has now been reprinted with corrections to several pages.

Those who have a copy of the 1960 edition can obtain, with the compli-
ments of the Society, a reprint containing those pages that have been cor-
rected for the 1961 printing. This reprint can be cut apart and the pages
inserted into the previous edition.

The twelve-chapter manual contains 283 pages of text, 102 illustrations,
24 tables, and 119 references. As the first extended collection of informa-
tion on the subject, it will make a valuable reference in an important phase of
wastewater technology. Individual subjects covered include organization and
administration of sewer projects, surveys and investigations, quantity of
sanitary sewage and storm water, hydraulics of sewers, design of sewer sys-
tems, appurtenances and special structures, materials for sewer construc-
tion methods, and pumping stations.

ASCE

Hydraulics Division

1961-8--11

The manual may be ordered by use of the coupon herewith. The list price is \$7.00 per copy; ASCE members and public and school libraries can order copies at a price of \$3.50 each. The price to members of WPCF is the same, upon application to that organization.

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Please send me copy(s) of Manual 37. Enclosed is my remittance of \$..... My ASCE membership grade is List price \$7.00.

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Please send me a complimentary reprint of those pages from Manual 37 that were corrected for the 1961 edition . . .

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MANUAL ON GROUND WATER BASIN MANAGEMENT

The Committee on Ground Water of the Irrigation and Drainage Division has completed the newest in the series of ASCE Manuals on Engineering Practice. This Manual (No. 40) is concerned with the operation and management of ground water resources for irrigation and other beneficial uses. The Manual will find its field of greatest use in the planning of water development projects and in designing and programming facilities for the controlled conjunctive operation of surface and ground water reservoirs in order to make maximum use of available water supplies. Copies of the ASCE Manual No. 40 can be obtained by use of the attached coupon. The list price is \$4.00, with ASCE members and public and school libraries receiving a 50% discount.

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10TH NATIONAL CONFERENCE

HYDRAULICS DIVISION

AMERICAN SOCIETY OF CIVIL ENGINEERS



**AUGUST
16, 17, 18,
1961**



**PLAN NOW TO ATTEND THIS CONFERENCE IN THE LAND OF LINCOLN
WATCH FOR ANNOUNCEMENTS IN CIVIL ENGINEERING
AND HYDRAULICS DIVISION NEWSLETTER**

YOUR LOCAL HOSTS:

BE OUR GUESTS IN '61

**CENTRAL ILLINOIS SECTION
UNIVERSITY OF ILLINOIS**

